

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Total	Supplie Name
P0638635	MES002- VC	1	1		1.2	Bronze C63000 Round Bar 2.250***				1	1/15/2018	1		5032573	Stock	1/16/2018	\$ 440.00 / ft	0		Metaux Solutions
									Total:	1		1							\$353.43	

Plex 1/16/2018 10:12 AM Dart.Plouffe.Sonia

Status: Receiving

art: MT-BRONZE-C63000-R2

Created: 1/16/18 10:11 AM DART.PLOUFFE.SONIA

Serial No: \$032573

Printed By: Plouffe, Sonia 1/16/18 10:11 AM

Shipping Order

12/01/2018

METAUX SOLUTIONS INC

2625 BOUL JACQUES CARTIER EST

LONGUEUIL, QUEBEC

J4N 1L7

Tel.: 450 641-3330

Order Reference : 131361 : 38635

Ship

: PICK UP / PICK UP

Ship To

Same

Tel.: 1613632-3336

Customer: 6323336

DART AEROSPACE LTD 1270, ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7

Item No.

Description

Qty

Oty. Deliver

B/O Oty

ABR214

******* FACTURER E-MAIL ******** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N

ALU-BRONZE 2.250 DIA c63000

ht; P10158

PR-D1-16.

ship puro collect #768382

jp

Shipping	:	Ref.	7	
Package No	:			
Merchandise I				

Shipping Order

12/01/2018

TAUX SOLUTIONS INC

.625 BOUL JACQUES CARTIER EST

LONGUEUIL, QUEBEC J4N 1L7

Tel.: 450 641-3330

Order Reference

: 131361

Ship

: 38635 : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD 1270, ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7 Ship To

Same

Tel.: 1613632-3336

Item No.	Description			
	7,000	Qty	Qty. Deliver	B/O Qt
	LE PACKING SLIP INSCRIRE LES HEAT N			
ABR214	ALU-BRONZE 2.250 DIA c63000	4	1	
	1 x 12" *********	1	-+	0
	ht; P10158			

ship puro collect #768382

Shipping: Package No:	Ref. :	
1erchandise Received:		



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

PURCHASE ORDER PO038635

Tel (613) 632-5200

Supplier:

MES002-VC

Metaux Solutions

2625 boul Jacques-Cartiler Est

Longueuil

QC

J4N 1L7 Canada Phone: 800 558 8858

Fax: 514 633 8044

PO No:

PO038635

PO Date:

12/13/17

Due Date:

12/21/17

Purchase Order

Revision:

Revision Date: Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground Net 30

Pymt Terms: Freight Terms:

Special Comments:

Items

Line Item	Part	Description	Status	Due Date		Received Quantity	1	Unit Price (CAD)	Extended Price
1	MT- BRONZE- C63000- R2.250	Bronze C63000 Round Bar 2.250"	Firmed	12/21/17	√1 ft	0A	1 ft	\$440.00/ft	\$440.00
ne Item Note	MAT'L AS P	ER BRONZE C63000 AS PER ANS	4640 OF	ASME S	B150 OR A	STM B150	OR SAE	J461 OR SAL	J463

Grand Total:

\$440.00

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/13/17 11:26 AM dart.lavoie.chantal

Chantal Lavoie

From:

Jérôme Primeau < j.primeau@metauxsolutions.com>

MT-Branze-C 63000-R 2.250

Sent:

Thursday, December 07, 2017 1:40 PM

To:

Chantal Lavoie

Subject:

RE: Material/Bronze

OFFER C63000 HR50 2.25" DIA. X 12" 440.00\$/PCE 5/7 DAYS

THANK YOU

De: Chantal Lavoie [mailto:clavoie@dartaero.com] Envoyé: Thursday, December 7, 2017 10:46 AM

À: Jérôme Primeau < j.primeau@metauxsolutions.com>

Objet: RE: Material/Bronze

thanks

From: Jérôme Primeau [mailto:j.primeau@metauxsolutions.com]

Sent: Thursday, December 07, 2017 10:46 AM To: Chantal Lavoie <clavoie@dartaero.com>

Subject: RE: Material/Bronze

Still waiting will get back

De: Chantal Lavoie [mailto:clavoie@dartaero.com] Envoyé: Thursday, December 7, 2017 10:35 AM

À: Jérôme Primeau < j.primeau@metauxsolutions.com>

Objet: RE: Material/Bronze

Hi Jerome, Any news on this mat'l. **Thanks**

Chantal

From: Chantal Lavoie

Sent: Wednesday, December 06, 2017 10:59 AM

To: 'Jérôme Primeau' < j.primeau@metauxsolutions.com>

Subject: FW: Material/Bronze

Hi Jerome,

Please advise price an delivery on mat'l.

Aluminum-Nickel-Bronze 630 per AMS 4640 per ASME SB150 or ASTM B150 or SAE J461 or J463 2.250"OD x 12"LONG round bar.

Thanks

Chantal



DART AEROSPACE LTD

1270, ABERDEEN ST.

Shipped to

, Ontario,

HAWKESBURY, Ontario, K6A 1K7

Att: CHANTAL LAVOIE Tél.: 613-632-5200

ACIER OUELLETTE INC.

935, Boul. du Hâvre

Salaberry de Valleyfield (Québec) J6S 5L1

Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0075787

Billed to Customer N°

Da

CLI0001056

Date

2017/12/07

Revision N°

0

Prices valid until

2017/12/14

Your Order No

Processed by

BERNARD

Salesman

JOSIANNE

Carrier

OUELLE SDV

Credit Terms

Net 30 Days

			Page			1			
Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amour
ROUND ALU/NICKEL/BRONZE C 6300 2 1/4" DIA N 1 X 12" 5-6 DAYS	0.00	1.00	UN		UN		1.00	1 305.000	1 305.00
SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE			\$						3.95

Total Weight (Lbs)

0.00

Important

This offer is based on availability and current pricing conditions that may be revised upon present or description of the condition of the con

Sub-total

1 308.95

TVH-13 · · 170.16

Date :_____ Total (\$CAD)

1 479.11

Daniel Paquette

From:

Daniel Paquette

Sent:

Wednesday, December 06, 2017 10:41 AM

To:

Chantal Lavoie

Subject:

FW: Material/Bronze

Any news on this?

Aluminum-Nickel-Bronze 630 per AMS 4640 per ASME SB150 or ASTM B150 or SAE J461 or J463 2.250"OD x 12"LONG round bar.

Linda asked me for the route and BOM for this part Nov.6 all I need to finish is the material. Thanks.

From: Daniel Paquette

Sent: Wednesday, November 29, 2017 11:00 AM **To:** Chantal Lavoie <clavoie@dartaero.com>

Subject: FW: Material/Bronze

Any news on this? Thanks.

From: Daniel Paquette

Sent: Monday, November 20, 2017 1:44 PM To: Chantal Lavoie <<u>clavoie@dartaero.com</u>>

Subject: FW: Material/Bronze

Can you let me know as soon as possible for this, production will be needing this shortly. Thanks.

From: Daniel Paquette

Sent: Thursday, November 16, 2017 8:39 AM **To:** Chantal Lavoie <<u>clavoie@dartaero.com</u>>

Subject: Material/Bronze

Hi Chantal, does one of our suppliers offer this material? If so I would need 2.250"OD x 12"LONG round bar. Thank you.

Aluminum-Nickel-Bronze 630 per AMS 4640 per ASME SB150 or ASTM B150 or SAE J461 or J463

From: William Monterroza

Sent: Wednesday, November 15, 2017 10:41 PM

To: Daniel Paquette <dpaquette@dartaero.com>; Scott Cameron <scameron@dartaero.com>; Vanessa Morel

<<u>vmorel@dartaero.com</u>>

Cc: David Duval < dduval@dartaero.com **Subject:** RE: Material spec. DWG. Bronze

Dan

The material called out on the drawing is Aluminum-Nickel-Bronze 630 per AMS 4640 per ASME SB150 or ASTM B150 or SAE J461 or J463

Can you check with supply chain if this is something they can get? If they can get this, then we don't need to change the drawing. If they cannot, I believe that the material in MBRONZR spec may be OK to use for this application.

Thanks , ~

From: Daniel Paquette

Sent: Wednesday, November 15, 2017 6:37 PM

To: Scott Cameron < scameron@dartaero.com >; Vanessa Morel < vmorel@dartaero.com > Cc: William Monterroza < vmonterroza@dartaero.com >; David Duval < dduval@dartaero.com >

Subject: Material spec. DWG. Bronze

Need a spec. DWG for this. We have MBRONZR DWG but it is for oil impregnated. Thanks. Ref; SWA6A-400

DANIEL PAQUETTE

Production Engineering Coordinator

DART AEROSPACE
T 1 613 632-5200 > 236
F 1 613 632-5246
1 800 556- 4166
www.dartaerospace.com



ISO 9001 2008 AS 9100 Rev. C LRQ. 0902066

BOLTON AEROSPACE LIMITED TEST CERTIFICATE

EN 10204:2004 3.1



CUSTOMER

TEST CERTIFICATE No	L33923 Rev: 0	
SERIAL / BATCH / LOT No	L33923	
CUSTOMER ORDER No	5400341958-R05	
WORKS ORDER NO	\$40961	

SPECIFICATIONS

ASTM B150-12 C63000 HR50 (HIGH STRENGTH)

QQ-C-465B AMD1 C63000 HIGH STRENGTH

- " IND MATERIAL C NIA TRIC

AMS 4640H 2011 HR50

DESCRIPTION

CA18 2.25IN Round 144IN Machined Rod (MR) Nickel Aluminium Bronze

WEIGHT ORDERED (Kg)
WEIGHT DESPATCHED (Kg)

1,361

MECHANICAL / PHYSICAL PROPERTIES

Tensile Specification	Heat No	Dia d	Area So	0.5% Yield Strength E.U.L	U.T.S. Rm	Elongation 4D	Hardness
ASTM E8 15a		mm	mm2	Ksl	Ksi	%	H8W10/3000
	P1015	12.50	122.72	67.4	114.1	22.7	229
		12.51	122.91	65.4	114.0	20.3	229
	T3687	12.51	122,91	65.8	113.7	19.0	229
		12.51	122.91	62.8	112.5	18.9	229
	T3688	12.51	122.91	61.9	111.8	17.1	223
		12.51	122.91	62,5	112.1	16.7	223
i	Min			55.0	105.0	10	187
	Max			n/a	n/a	n/a	241

CHEMICAL COMPOSITION

Heat No	Zn	Fe	Mn	Al	NI	Sn	Pb	51	Cu+Ag	Ni+Co	Weight (Kg)
P1015	0.05	3.78	0.24	9.86	4.73	0.02	<0.01	0.08	BAL	4.73	605
T3687	0.01	3.70	0.16	9.88	4.78	0.01	<0.01	0.04	BAL.	4.78	510
T3688	0.07	3.69	0.32	9.91	4.78	0.02	<0.01	0.04	BAL	4.79	307
Min	-	2.00	-	9.00	4.00		-	-	-	4.00	
Max	0.30	4.00	1.50	11.00	5.50	0.20	0.50	0.25	BAL	5.50	

REMARKS

Residual stress test satisfactory Extruded Drawn and stress relieved Country of Melt and Manufacture is UK No Weld Repairs CURD00672. We certify that material is free from mercury contamination

Signed for on behalf of BOLTON AEROSPACE LIMITED

J COME

Senior Inspector: J.Gaffney

Signed: 13 Jun 2017

Printed: 16 Jun 2017

Bolton Aerospace Limited

PO Box 22, Hadleigh Road, Ipswich, Suffolk, IP2 0EG Tel: +44 (0) 1473 252127 Fax: +44 (0) 1473 218229 Email: mail@boktonmetals.com www.boktonmetals.com Registered in England Company Number 05832146

BOLTON AEROSPACE LIMITED CERT OF CONFORMITY AND/OR APPROVED CERTIFICATE



CUSTOMER

	TEST CERTIFICATE No	L33923 Rev: 0			
	SERIAL / BATCH / LOT No	L33923			
	CUSTOMER ORDER No	5400341958-R05			
	WORKS ORDER No	540961			
	CERT OF CONFORMITY	L33923			
SPECIFICATIONS	DESCRIPTION				
ASTM B150-12 C63000 HR50 (HIGH STRENGTH) QQ-C-465B AMD1 C63000 HIGH STRENGTH AMS 4640H 2011 HR50	CA18 2.25IN Round 1 Nickel Alu	44IN Machined Rod (MR) minium Bronze			
	WEIGHT ORDERED (Kg)	1,361			
	WEIGHT DESPATCHED (Kg)	1,422			

REMARKS / CONDITION OF MATERIAL:

DEVIATIONS, e.g. Major Concassions or Production Permit:

The products to which this declaration relates conform to the conditions and requirements of the purchaser and to the description, quantity and specification stated. These products have been produced under a certified quality system. The test results have been determined by an assessed or accredited laboratory

Signed for on behalf of BOLTON AEROSPACE LIMITED

ISO 9001 2008, AS 9100 Rev.C LRQ. 0902066

Senior Inspector: J.Gaffney

Signed: 13 Jun 2017

Printed : 16 Jun 2017

PO Box 22, Hadleigh Road, Ipswich, Suffolk, IP2 0EG Tel: +44 (0) 1473 252127 Fax: +44 (0) 1473 218229 Email: mail@boltonmetals.com www.boltonmetals.com Registered in England Company Number 05832146

DATE.	JA	N 1	-C6300-R2.250 PO/BATCH NO.: 03 8635/5032
QUANTITY RECEIVED QUANTITY INSPECTED QUANTITY REJECTED	es 111		THICKNESS ORDERED: 2-250 THICKNESS RECEIVED: 7-250 SHEET SIZE ORDERED: WAS
DESCRIPTION	(Cr	CR neck (N)	COMMENTS
SURFACE DAMAGE	Y	D	
CORRECT FINISH	(N	
CORROSION	Y	(1)	
CORRECT GRAIN DIRECTION	(4)	N	
CORRECT MATERIAL PER M-DRAWING	(A)	N	Am54640
CORRECT THICKNESS	d	N	
PHOTO REQUIRED	Y	(1)	
CORRECT REF # TO LINK CERT	(8)	N	Heat # 10158
ORRECT MATERIAL IDENTIFICATION		N	
CORRECT M# ON THE MAYER'AL	(4)	N	
DOES THIS MATERIAL REQUIRE		1	
ENGINEERING SIGN OFF	Y	R	
DOES THIS REQUIRE AN		3	
EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF				SS CHECK.	
}	RECORD RES	ULTS BELO	N		
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	DAS	ENGINEERING SIGNOFF (if required
INSPECTED BY.	11	SIGNED OFF BY:
DATE:	9-89 JAN 16 20	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

BRONZE C63000 ROUND BAR MT-BRONZE-C63000-R AMS 4640 PR ASME SB159 OR ASTM B150 OR SAE J461 OR SAE J463 ECN# 1/4" ROUND BRONZE C63000 = MT-BRONZE-C63000-R-0.250 3 DESCRIPTION NEW ISSUE WHERE D.DDD IS DIAMETER IN INCHES SPECIFICATION CONTROL DRAWING MT-BRONZE-C63000-R-[D.DDD] BRONZE C63000 PURCHASE MATERIAL: SPECIFICATION: PART NUMBER: **EXAMPLE:** 0 O